

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (canceled)

2. (canceled)

3. (previously presented) A method for copying data in a diskarray apparatus coupled to a computer, said diskarray apparatus comprising $m + n$ disk devices partitioned into a first group of n disk devices and a second group of m disk devices, m and n being different integers:

storing data received from said computer in both of said n disk devices of said first group and said m disk devices of said second group for maintaining duplicated data;
halting duplicating data based on an instruction from said computer;
storing data received from said computer, during interruption of data duplicating, in n disk devices of said first group while recording location information of stored data;
restarting data duplicating based on an instruction from said computer;
reading data of $m-1$ units from said first group of n disk devices;
forming redundant data based on the data of $m-1$ units read from said first group of n disk devices; and
storing certain data of $m-1$ units as designated by the recorded location information and said redundant data in said m disk devices of said second group.

4. (currently amended) A diskarray apparatus comprising:
n + m disk devices partitioned into n disk devices and m disk devices, n and m
being different integers;
an n control means for controlling said n disk devices; [[and]]
an m control means for controlling said m disk devices,
an interface connected to a computer;
duplex means for storing data received from said computer in both of said n disk
devices and said m disk devices;
means for interrupting said duplex means in accordance with an instruction from
said computer; and
update management means for recording location information indicating location
in said n disk devices to which data received from said computer is stored during interruption of
said duplex means;
wherein when copying data from said n disk devices to said m disk devices, said n
control means reads data of m-1 units from said n disk devices, said m control means forms
redundant data based on the data of m-1 units read from said n disk devices, and said m control
means stores each data of m-1 units and said redundant data in said m disk devices; and
wherein said m control means stores certain data designated by said location
information in said m disk devices, when said duplex means restarts data duplicating in
accordance with an instruction from said computer.

5. (previously presented) The diskarray apparatus according to claim 4
wherein said unit is a predetermined data length with a logical block address as a reference.

6. (canceled)

7. (canceled)

8. (canceled)

9. (canceled)

10. (previously presented) A diskarray system comprising:

n + m disk devices;

a processor;

a memory storing programs executed by said processor;

a mirror primary LU in n disk devices wherein, in said mirror primary LU, data of n-1 units and redundant data generated from said data of n-1 units are stored in said n disk devices;

a mirror secondary LU in m disk devices wherein, in said mirror secondary LU, data of m-1 units and redundant data generated from said data of m-1 units are stored in said m disk devices;

an n-RAID control subprogram stored in said memory for performing RAID control of the mirror primary LU;

an m-RAID control subprogram stored in said memory for performing RAID control of the mirror secondary LU;

an LU mirror subprogram stored in said memory for writing data received from a computer into said mirror primary LU and said mirror secondary LU for maintaining duplicated data in said mirror primary LU and said mirror secondary LU;

a non-mirror event update monitor subprogram stored in said memory for monitoring data update with respect to said mirror primary LU upon interruption of duplicating data between said mirror primary LU and said mirror secondary LU;

a non-mirror event update position management subprogram stored in said memory for recording an update position of said data update with respect to said mirror primary LU; and

a mirror resynchronous subprogram stored in said memory for copying data designated by the recorded update position from said mirror primary LU to said mirror secondary LU,

wherein n and m are different integers.

11. (canceled)

12. (previously presented) The diskarray system according to claim 10, wherein when said mirror resynchronous subprogram is executed, said n-RAID control subprogram reads data from said mirror primary LU, the read data is included in a same stripe of said mirror secondary LU as data copied by said mirror resynchronous subprogram, and wherein said m-RAID control subprogram generates new redundant data based on the data read by said n-RAID control subprogram and the data copied by said mirror resynchronous subprogram and stores the new redundant data and the data copied by said mirror resynchronous subprogram in said mirror secondary LU.

13. (previously presented) A diskarray system comprising:
a first diskarray system comprising n disk devices; and
a second diskarray system comprising m disk devices,
wherein said first diskarray system comprises
a mirror primary LU in said n disk devices wherein, in said mirror primary LU, data of n-1 units and redundant data generated based on said data of n-1 units are stored;
an n-RAID control subprogram for performing RAID control of said mirror primary LU;
an LU mirror subprogram for writing data received from a computer into said mirror primary LU and sending said data to said second diskarray system;
a non-mirror update monitor subprogram for monitoring data update with respect to said mirror primary LU during interruption of duplicating data between said first diskarray system and said second diskarray system;
a non-mirror event update position management subprogram for recording an update position of said data update with respect to said mirror primary LU; and
a mirror resynchronous subprogram for copying data designated by said recorded update position from said mirror primary LU to said second diskarray system; and
wherein said second diskarray system comprises

a mirror secondary LU in said m disk devices wherein, in said mirror secondary LU, data of m-1 units and redundant data generated based on said data of m-1 units are stored; and

an m-RAID control subprogram for performing RAID control of said mirror secondary LU, and said m-RAID control subprogram generates redundant data corresponding to data received from said first diskarray system, and stores said redundant data and said data received from said first diskarray system into said mirror secondary LU, wherein said n and m are different integers.

14. (previously presented) The computer system according to claim 13 wherein said mirror primary LU and said mirror secondary LU have different levels of RAID configuration.